

What is claimed is:

1. Frequency modulation switching apparatus for rapidly increasing and decreasing the frequency within radio-frequency pulses of radio wave pulse trains transmitted by an antenna having series inductance and capacitance, the apparatus having, in combination, a solid state four-terminal rectifier bridge circuit with opposing pairs of bridge terminals connected with one pair of opposing terminals shunting said inductance and said capacitance; and series-connected saturable and linear inductors and an SCR switch connected between the other pair of opposing terminals of the bridge circuit, whereby the high-speed triggering of the SCR on effects corresponding high-speed frequency increasing or decreasing of the frequency within the radio-frequency pulse to provide the desired frequency modulation therein.
2. The apparatus of claim 1 wherein the radio-wave pulse trains are Loran-C navigation pulses.
3. The apparatus of claim 2 wherein the bridge rectifiers are symmetrically disposed in each of the arms of the bridge.
4. The apparatus of claim 2 wherein the triggering of the SCR is effected in accordance with digital bits comprising communication to be added to the Loran-C navigation transmissions and without impacting the navigation utilization thereof.